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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,320	01/23/2002	Neil J. Bassom	F071	8008

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EXAMINER

ROCCHIGIANI, RENZO

ART UNIT PAPER NUMBER

2825

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,320

Applicant(s)

BASSOM ET AL.

Examiner

Renzo N. Rocchegiani

Art Unit

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AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term-adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 31-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-8 and 15 is/are allowed.
- 6) ☐ Claim(s) 1-5, 9-14, 16-18, 31 and 33-36 is/are rejected.
- 7) ☒ Claim(s) 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 9-14, 16-18, 31, 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,261,850 B1 (Marsh) in view of applicant's admission.

Marsh discloses a process to form a conductive material with a focused ion beam deposition using two precursor gasses one comprising an organometallic platinum compound and the other comprising a non-conductive precursor that if used by itself would form a dielectric layer. (col. 2, lines 44-65). Marsh further discloses that the deposition of the conductive material is controlled by controlling the flow, and thus concentration, of the precursor gases. (col. 9, lines 20-30) Marsh discloses injecting the precursor gases simultaneously through separate inlet ports. (col. 9, lines 1-8).

Marsh does not disclose that the conductive material has a high resistivity that falls between 5×10^4 and 7×10^4 ohms per square.

In their response applicant admitted that the resistivity of the conductive material layer is dependent on its size, thus recognizing that the size of the layer is a result effective variable. Based on this admission, it would have been obvious to one with ordinary skill in the specific art to form the layer to have a high resistivity since it has

been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

It would further be obvious to one with ordinary skill in the specific art to inlet the gasses through the same port, since it has been held that the provision of adjustability involves only routine skill in the art. *In re Stevens*, 101 USPQ 284 (CCPA 1954).

It would be inherent that the voltage to current relationship for the conductive film will be linear since that is the relationship between voltage and current.

Allowable Subject Matter

3. Claims 6-8, and 15 are allowed.
4. Claim 32 is also allowable but for the minor informality that has been objected to as stated below.

Claim Objections

5. Claims 2 and 32 are objected to because of the following informalities: on line 9, the word "product" should be "produce". Appropriate correction is required.

Response to Arguments

6. Applicant's arguments filed on December 24, 2003 have been fully considered but they are not persuasive. Applicant argues that oxygen is not a precursor gas. The examiner disagrees. Merriam-Webster's Dictionary defines a precursor as "a substance, cell, or cellular component from which another substance, cell, or cellular component is formed." In the prior art cited, oxygen is necessary to form the final compound and thus it is a substance from which another substance is formed.

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Applicant's argument that oxygen is a reactant and thus not a precursor is based on mere semantics and is thus not persuasive. If oxygen were used on its own it would form an oxide layer that would be insulative and thus the limitations of the claims are met. The allowable subject matter has been indicated in the previous office action. Consistent with the previous action the examiner has indicated the claims containing allowable subject matter that applicant has rewarded in independent form as allowable. The examiner emphasizes the minor informality in claim 32 which is the only issue remaining to render that claim allowable. The examiner also points out that the same informality is found in non-patentable claim 2. Because the rejection stands this action is made final.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renzo N. Rocchegiani whose telephone number is (571)272-1904. The examiner can normally be reached on Mon.-Fri. 8:00 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571)272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Renzo N. Rocchegiani
Examiner
Art Unit 2825



MATTHEW SMITH
SUPERVISORY PATENT EXAMINER
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